WHAT IS CLAIMED IS:

1. An automaton configured to perform a task, the automaton comprising:

a communication interface to communicate positional information with one or more anchor points provided within a given environment, the positional information enabling generation of mapping information of the given environment;

a motor to provide the automation with mobility;

a memory to store the mapping information; and

a controller to control the motor to enable the automaton to perform the task in the given environment using a task route that has been generated using the mapping information.

2. The automaton of claim 1, further comprising:

a sensor to detect an object provided within the given environment.

3. The automaton of claim 1, wherein the controller is configured to generate the mapping information using the positional information.

4. The automaton of claim 1, wherein the communication interface and anchor points are Ultra Wide Band transceivers.

5. The automaton of claim 4, wherein the mapping information is generated remotely from the automaton.

6. The automaton of claim 1, wherein the automaton is an automatic cleaner.

7. The automaton of claim 1, wherein the automaton is configured to perform at least one of the following tasks: sweeping, vacuuming, mopping, mowing, and painting.

8. An automated system for performing a task in a given environment, the system comprising:

a plurality of anchor points configured to transmit and receive Ultra Wide Band ("UWB") signals, the plurality of anchor points provided within the environment to define a first area wherein the task is to be performed; and

an automaton configured to perform the task, the automaton including:

a communication interface configured to transmit and receive the UWB signals to and from the anchor points,

a controller configured to process the UWB signals and generate mapping information of the environment using the UWB signals,

a memory to store the mapping information, and

a motor configured to provide the automation with mobility.

9. The system of claim 8, wherein the controller is configured to generate a task route for performing the task in the given environment using the mapping information.

10. The system of claim 8, wherein the anchor points are provided with unique identification numbers.

11. The system of claim 8, wherein the anchor points are used to define a second area within the environment that is excluded from the first area, so that the task is not performed within the second area.

12. The system of claim 8, wherein the mapping information includes a task route for performing the task, or positional information on one or more objects provided within the first area, or both.

13. A method for performing a task within an environment using an automaton, the method comprising:

generating first mapping information of a first area defined within the environment using positional information relating to the first area, where the positional information is obtained by using signals exchanged between the automaton and one or more anchor points provided within the environment; and

controlling the automaton to navigate within the first area to perform the task using second mapping information of the first area.

14. The method of claim 13, wherein the anchor points are provided within the environment to define the first area.

15. The method of claim 13, further comprising:

determining position of an obstacle encountered within the first area using a communication interface provided in the automaton.

16. The method of claim 15, wherein the positional information is derived using the Ultra Wide Band technology, wherein the positional information includes information about the position of the obstacle.

17. The method of claim 13, further comprising:

generating a first task route using the first mapping information, the first task route being used by the automaton to navigate within the first area to perform the task.

18. The method of claim 17, wherein the second mapping information includes the first task route.

19. The method of claim 17, further comprising:

updating the first mapping information when a given obstacle is encountered by the automaton while performing the task within the first area; and

re-routing the automaton based on the updated first mapping information.

20. The method of claim 19, further comprising:

categorizing the given obstacle as a temporary obstacle when the given obstacle is first encountered; and

categorizing the given obstacle as a stationary obstacle when the given obstacle is found in the same location while the automaton is performing the task at a later time.

21. A method for using an automaton, the method comprising:

controlling the automaton to perform a first task within a first area defined by a plurality of anchor points, the anchor points configured to transmit positional information to the automaton;

generating first mapping information of the first area using the positional information received from the anchor points, the first mapping information including information on a location of a first obstacle provided within the first area;

thereafter, controlling the automaton to navigate and perform a second task within the first area using the first mapping information; and

generating second mapping information if a second obstacle is encountered while performing the second task.

22. The method of claim 21, further comprising:

determining power available to the automaton, wherein the second mapping information is generated according to the available power.

23. The method of claim 21, further comprising:

determining power available to the automaton;

calculating whether the power determined to be available is sufficient to complete an initial task route obtained according to the first or second mapping information; and

generating a substitute task route if the calculation indicates that the available power is insufficient to perform the initial task route.

24. The method of claim 23, wherein the substitute task route ends proximate a power supply.